Please substitute the following amended claim(s) for corresponding claim(s) previously presented. A copy of the amended claim(s) showing current revisions is attached.

---

1. (Amended) A liquid crystal display device comprising:

a thin film transistor array substrate including: pixel use thin film transistors, which are formed on an insulating substrate and each of which has a gate electrode, a source electrode and a drain electrode; pixel electrodes, which are formed on the insulating substrate and comprise transparent conductive films connected to the respective pixel use thin film transistors; and supplementary capacitances for retaining electric charges of the pixel electrodes, and a liquid crystal layer held between the thin film transistor array substrate and an opposite substrate,

at least one of the supplementary capacitances being provided by one of the pixel electrodes, a supplementary capacitance use transparent insulating film formed under at least the pixel electrode and a common electrode that is formed under the supplementary capacitance use transparent insulating film and comprised of a transparent conductive film connected to a specified potential, and

wherein the pixel electrode of the at least one supplemental capacitance has edge portions overlapping at least one gate bus line and at least one source bus line formed on the insulating substrate, and the common electrode is arranged between the gate bus line and the pixel electrode and between the source bus line and the pixel electrode so as to

A1

cover at least portions of the gate bus line and the source bus line so that the gate bus line and source bus line act as a black matrix.

Please add the following new claims:

A2

8. (New) A liquid crystal display device comprising:

a thin film transistor array substrate including thin film transistors supported by an insulating substrate and each of which has a gate electrode, a source electrode and a drain electrode; pixel electrodes comprised of transparent conductive films connected to respective thin film transistors; supplementary capacitances for retaining electric charges of the pixel electrodes; and a liquid crystal layer between at least the thin film transistor array substrate and an opposite substrate,

the supplementary capacitance for a pixel region comprising a pixel electrode, a supplementary capacitance use transparent insulating film formed under at least the pixel electrode and a common electrode that is formed under the supplementary capacitance use transparent insulating film and comprised of a transparent conductive film connected to a potential, and

wherein, for the supplementary capacitance in the pixel region, the supplementary capacitance use transparent insulating film has a film thickness d so as to satisfy the following equation:

$$d = \lambda / (2 \times n) \times m$$

where m is an integer, and n is an index of refraction of the transparent insulating film of the supplementary capacitance, and λ is a wavelength at which transmittance is desired to be increased, so that materials and thicknesses thereof of the supplementary capacitance are selected so as to increase transmittance at the wavelength λ.

9. (New) A liquid crystal display device as claimed in claim 8, wherein a difference between a refractive index of the supplementary capacitance use transparent insulating film and a refractive index of the pixel electrodes is set to a value of not greater than 0.6 and a difference between a refractive index of the supplementary capacitance use transparent insulating film and a refractive index of the common electrode is set to a value of not greater than 0.6.

10. (New) A liquid crystal display device as claimed in claim 8, wherein the pixel electrode and the common electrode are made of a material having a specific resistance of 1 mΩ·cm or less.

11. (New) A liquid crystal display device as claimed in claim 8, wherein the pixel electrodes have edge portions overlapping gate bus lines and source bus lines formed on the insulating substrate, and the common electrode is arranged between the gate bus lines and the pixel electrodes and between the source bus lines and the pixel electrodes so as to cover the gate bus lines and the source bus lines.

12. (New) A liquid crystal display device as claimed in claim 8, wherein the supplementary capacitance use transparent insulating film is any one of a silicon oxide film, a silicon nitride film and an organic resin film or a laminate film comprised of at least two of the silicon oxide film, the silicon nitride film and the organic resin film.

A2

13. (New) A liquid crystal display device as claimed in claim 8, wherein the pixel uses a thin film transistor having an active layer comprising polysilicon, and a drive circuit thereof uses thin film transistors whose active layers comprising polysilicon are formed on the insulating substrate identical to the substrate on which the thin film transistor of the pixel is formed.

14. (New) A liquid crystal display device as claimed in claim 13, wherein the active layer of the thin film transistor of the pixel and the transistors of the drive circuit are polysilicon films crystallized by utilizing a catalytic effect of an introduced catalytic element.

15. (New) A liquid crystal display comprising:

a pixel electrode in communication with a switching element and supported by a substrate;

a supplemental capacitance for retaining electric charge of the pixel electrode, the supplemental capacitance being comprised of the pixel electrode, another electrode, and a dielectric film provided between the pixel electrode and the another electrode;

wherein a thickness d and index of refraction n of the dielectric film of the supplemental capacitance are selected to satisfy an equation $d = \lambda / (2 \times n) \times m$, wherein m is an integer, in order to increase transmittance at a wavelength λ.

16. (New) The liquid crystal display of claim 15, wherein the dielectric film of the supplemental capacitance has an index of refraction of at least 1.4, and a difference between respective indices of refraction of the dielectric film and the another electrode is no greater than 0.6.

A2

17. (New) The liquid crystal display of claim 15, wherein the index of refraction of the dielectric film is about 1.9.

18. (New) The liquid crystal display of claim 15, wherein the dielectric film comprises silicon nitride.

19. (New) A liquid crystal display comprising:

a pixel electrode in communication with a switching element and supported by a substrate;

a supplemental capacitance for retaining electric charge of the pixel electrode, the supplemental capacitance being comprised of the pixel electrode, another electrode, and a dielectric film provided between the pixel electrode and the another electrode;

wherein an index of refraction n and a thickness of the dielectric film of the

supplemental capacitance are selected in order to maximize transmittance at a particular wavelength so that the index of refraction n of the dielectric film corresponds to an apex of a curved plotted based on transmittance at the wavelength versus the refractive index of the dielectric film.

20. (New) The liquid crystal display of claim 19, wherein the dielectric film of the supplemental capacitance has an index of refraction of at least 1.4, and a difference between respective indices of refraction of the dielectric film and the another electrode is no greater than 0.6.

21. (New) The liquid crystal display of claim 19, wherein the index of refraction of the dielectric film is about 1.9.

22. (New) The liquid crystal display of claim 19, wherein the dielectric film comprises silicon nitride.

23. (New) A liquid crystal display comprising:

a pixel electrode in communication with a switching element and supported by a substrate;

a supplemental capacitance for retaining electric charge of the pixel electrode, the supplemental capacitance being comprised of the pixel electrode, another electrode, and a dielectric film provided between the pixel electrode and the another electrode; and

wherein an index of refraction and thickness of the dielectric film of the supplemental capacitance are selected in order to maximize transmittance of the display at a particular wavelength.

A2

24. (New) The display of claim 23, wherein the pixel electrode has edge portions overlapping at least one gate bus line and at least one source bus line formed on the substrate, and the another electrode is arranged between the gate bus line and the pixel electrode and between the source bus line and the pixel electrode so as to cover the gate bus line and the source bus line so that the gate bus line and source bus line act as a black matrix.

25. (New) The display of claim 8, wherein the pixel electrode has edge portions overlapping at least one gate bus line and at least one source bus line formed on the substrate, and the another electrode is arranged between the gate bus line and the pixel electrode and between the source bus line and the pixel electrode so as to cover the gate bus line and the source bus line so that the gate bus line and source bus line act as a black matrix.

REMARKS

This is in response to the Office Action dated March 31, 2003. Claim 4 has been canceled. New claims 8-25 have been added. Thus, claims 1-3 and 5-25 are now pending. Attached hereto is a marked-up version of the changes made to the